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DATE: Thursday, October 24, 2002

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L1	DEZ or CMKLR1 or chemokine-like receptor 1	319	L1

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          now available on STN
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reloaded
 NEWS 22 Aug 26 Sequence searching in REGISTRY enhanced
 NEWS 23 Sep 03 JAPIO has been reloaded and enhanced
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=> s DEZ or CMKLR1 or chemokine like receptor 1
L1        123 DEZ OR CMKLR1 OR CHEMOKINE LIKE RECEPTOR 1

=> s l1 and (deficien? or disrupt? or knockout or knock out or transgen?)
L2          0 L1 AND (DEFICIEN? OR DISRUPT? OR KNOCKOUT OR KNOCK
OUT OR TRANSG
            EN?)

=> s l1 and function
L3          7 L1 AND FUNCTION

=> s l1 and review
L4          4 L1 AND REVIEW

=> s l3 or l4
L5         11 L3 OR L4

=> dup rem l5
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L6          7 DUP REM L5 (4 DUPLICATES REMOVED)

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L6  ANSWER 1 OF 7  CAPLUS  COPYRIGHT 2002 ACS
AN  1998:290273  CAPLUS
DN  129:45712
TI  The reactions of diethylzinc on gallium-rich and arsenic-rich
    reconstructions of GaAs(100)
AU  Lam, H. T.; Venkateswaran, N.; Vohs, J. M.
CS  Dep. of Chemical Engineering, University of Pennsylvania, Philadelphia,
    PA, 19104-6393, USA
SO  Surface Science (1998), 401(1), 34-46
    CODEN: SUSCAS; ISSN: 0039-6028
PB  Elsevier Science B.V.
DT  Journal
LA  English
AB  Temp. programmed desorption (TPD) and high-resoln. EELS (HREELS) were
used
    to study the reaction of diethylzinc ( ***DEZ*** ) on the Ga-rich (4
    .times. 2) and As-rich (2 .times. 4) and c(4 .times. 4) reconstruction of
    GaAs(100).  ***DEZ***  dissociatively adsorbed on all three surfaces to
    form Et groups and Zn atoms. The strength of Zn-surface interaction is a
     ***function***  of surface As/Ga ratio. Adsorbed Zn atoms desorbed at
    560 K on the Ga-rich (4 .times. 2) reconstruction and 585 K on the As-rich
    (2 .times. 4) reconstruction. For the c(4 .times. 4) surface, the primary
    Zn desorption feature was also at 585 K; however, addnl. Zn desorption
    features appeared between 600 and 700 K. In contrast to the interaction
    of Zn with GaAs(100), only minor variations in the reaction pathways for
    surface Et groups were obsd. as the surface As/Ga ratio was varied. The
    primary reaction pathway for Et groups on all three surfaces was
    .beta.-hydride elimination at 570 K to produce ethylene. The ethylene
    yield increases with increasing surface Ga concn.

L6  ANSWER 2 OF 7  CAPLUS  COPYRIGHT 2002 ACS
AN  1998:172303  CAPLUS
DN  128:287022
TI  Search for SM Higgs signals at LHC
AU  Strohmer, R.
CS  LMU Munchen, Sektion Physik, Garching, 85748, Germany
SO  Acta Physica Polonica, B (1997), 28(11), 2509-2514
    CODEN: APOBBB; ISSN: 0587-4254
PB  Jagellonian University, Institute of Physics
DT  Journal; General Review
LA  English
AB  Both the ATLAS and CMS collaborations have developed search strategies
    (which are quite similar) to find a Std. Model Higgs boson at the LHC.
    This paper describes the basic concepts of them, it is mostly based on the
    Tech. Proposals of the two expts. ATLAS (Tech. Proposal CERN/LHC/94-43
    (15. ***Dez***  1994) and Tech. Proposal CMS Collaoration CERN/LHC/94-38
    (15. ***Dez***  1994)). After combining the different channels both
    expts. will be able to see a SM Higgs boson in the range of 80 GeV/c2 > mH
    > 1000 GeV/c2 with at least 5.sigma. significances after collecting an
    integrated luminosity of 105pb-1. A  ***review***  with 4 refs.

L6  ANSWER 3 OF 7  BIOSIS  COPYRIGHT 2002 BIOLOGICAL ABSTRACTS
INC.DUPLICATE 1
AN  1997:269403  BIOSIS
DN  PREV199799561121
TI  A novel G protein-coupled receptor with homology to neuropeptide and
    chemoattractant receptors expressed during bone development.
AU  Methner, Axel; Hermey, Guido; Schinke, Birgitta; Hermans-Borgmeyer, Irm
    (1)
CS  (1) Cent. Mol. Neurobiol., Univ. Hamburg, Martinistrasse 52, D-20246
    Hamburg Germany
SO  Biochemical and Biophysical Research Communications, (1997) Vol. 233, No.
    2, pp. 336-342.
    ISSN: 0006-291X.
DT  Article
LA  English
AB  A novel G protein-coupled receptor was isolated from a cDNA derived from
    the cell line NH15-CA2 and a cDNA library from adult mouse brain using a
    PCR cloning strategy. The amino acid sequence of the candidate receptor
     ***DEZ***  showed homology to neuropeptide and chemoattractant receptors.
    Highest overall homology was found with the orphan receptor GPR-1 (65%),
    the angiotensin II receptor (62%), and the C5a anaphylatoxin receptor
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(60%). Northern blot analysis of ***dez*** revealed a predominant 2.6 kb mRNA species in NH15-CA2 cells. In situ hybridization experiments showed that ***dez*** is differentially regulated during development, with a prominent expression in developing osseous and cartilaginous tissue. It was also detectable in the adult parathyroid glands, hinting at a possible ***function*** in bone metabolism.

L6 ANSWER 4 OF 7 CAPLUS COPYRIGHT 2002 ACS
AN 1997:588043 CAPLUS
DN 127:245460
TI Cellular specificity of the gravitropic motor response in roots
AU Evans, Michael L.; Ishikawa, Hideo
CS Department Plant Biology, Ohio State University, Columbus, OH, 43210, USA
SO Planta (1997), 203(Suppl., Plant Biology in Space), S115-S122
CODEN: PLANAB; ISSN: 0032-0935
PB Springer
DT Journal; General Review
LA English
AB A ***review*** with 53 refs. A no. of features of the gravitropic response of roots are not readily accounted for by the classical Cholodny-Went theory. These include the observations that (i) in the later stages of the response the growth gradient is reversed with no evident reversal of the auxin gradient; (ii) a major component of the acceleration of growth along the upper side occurs in the distal elongation zone (***DEZ***), a group of cells located between the meristem and the main elongation, not within the central elongation zone; and (iii) the initiation of differential growth in the ***DEZ*** appears to be independent of the establishment of auxin asymmetry. Alternative candidates for mediation of differential growth in the ***DEZ*** include calcium ions and protons. Gravi-induced curvature is accompanied by polar movement of calcium toward the lower side of the maize root tip and the ***DEZ*** is shown to be particularly sensitive to growth inhibition by calcium. Also, gravistimulation of maize roots causes enhanced acid efflux from the upper side of the ***DEZ*** . Evidence for gravi-induced modification of ion movements in the root tip includes changes in intracellular potentials and current flow. It is clear that there is more than one motor region in the root with regard to gravitropic responses and there is evidence that the ***DEZ*** itself consists of more than one class of responding cells. To gain a more complete understanding of the mechanism of gravitropic curvature, the physiol. properties of the sub-zones of the root apex need to be thoroughly characterized with regard to their sensitivity to hormones, calcium, acid pH and elec. perturbations.

L6 ANSWER 5 OF 7 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.DUPLICATE 2
AN 1997:65362 BIOSIS
DN PREV199799364565
TI Molecular cloning of a novel receptor (***CMKLR1***) with homology to the chemotactic factor receptors.
AU Gantz, I. (1); Konda, Y.; Yang, Y.-K.; Miller, D. E.; Dierick, H. A.; Yamada, T.
CS (1) 6504 MSRB I, 1150 W. Medical Center Drive, Univ. Michigan Med. Center, Ann Arbor, MI 48109-0682 USA
SO Cytogenetics and Cell Genetics, (1996) Vol. 74, No. 4, pp. 286-290.
ISSN: 0301-0171.
DT Article
LA English
AB We report the cloning of a novel human gene, ***CMKLR1*** , which encodes a protein that has notable sequence and structural homology to the seven transmembrane G-protein linked chemokine receptors. This gene has 55% nucleotide sequence homology to the IL8 type 1 receptor and 53% to the N-formyl peptide related receptor 1 genes. The mRNA of this receptor is expressed in a broad array of tissues associated with hematopoietic and immune ***function*** including, spleen, thymus, appendix, lymph node, bone marrow, and fetal liver. Using fluorescence in situ hybridization the gene encoding CMLKR1 (***chemokine*** - ***like*** ***receptor*** ***1***) was localized to human chromosome 12q24.1.

L6 ANSWER 6 OF 7 CAPLUS COPYRIGHT 2002 ACS
AN 1993:410629 CAPLUS
DN 119:10629
TI Decomposition of paper soon expected in all libraries
AU Hauenstein, Brigitte
CS Switz.
SO Schweizerische Laboratoriums-Zeitschrift (1993), 50(4), 106-9
CODEN: SSLADA; ISSN: 0253-5211
DT Journal; General Review
LA German
AB A ***review*** without refs. on the fatal consequences of the application of resin-alum glue in paper manuf. of the 19th century and the international state of development in paper deacidification with ref. to the American ***DEZ*** process, the MMC process, the Canadian Wei T'o process (according to the Chinese deity for protection of paper and books), the French MMC plant, the German MMC development at Battelle Institute, and the American Lithco process (Lithium Corporation).

L6 ANSWER 7 OF 7 EMBASE COPYRIGHT 2002 ELSEVIER SCI. B.V.
AN 93020881 EMBASE
DN 1993020881
TI [Bronchoscopy: Ten year ***review*** in emergency hospital].
BRONCOSCOPIA: REVISAO DE ***DEZ*** ANOS EM HOSPITAL DE PRONTO SOCORRO.
AU Malinsky A.; Pignataro Nicolini M.M.; Marques Mason M.
CS Av. Venancio Aires, 1192 sala 12,Porto Alegre, Portugal
SO Revista Brasileira de Otorrinolaringologia, (1992) 58/4 (269-271).
ISSN: 0034-7299 CODEN: RBORAB
CY Brazil
DT Journal; Article
FS 011 Otorhinolaryngology
015 Chest Diseases, Thoracic Surgery and Tuberculosis
LA Portuguese
SL Portuguese; English

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FILE 'BIOSIS, EMBASE, CAPLUS' ENTERED AT 18:16:32 ON 24 OCT 2002
L1 123 S DEZ OR CMKLR1 OR CHEMOKINE LIKE RECEPTOR 1
L2 0 S L1 AND (DEFICIEN? OR DISRUPT? OR KNOCKOUT OR KNOCK OUT OR TRA
L3 7 S L1 AND FUNCTION
L4 4 S L1 AND REVIEW
L5 11 S L3 OR L4
L6 7 DUP REM L5 (4 DUPLICATES REMOVED)

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PROCESSING COMPLETED FOR L1
L7 113 DUP REM L1 (10 DUPLICATES REMOVED)

=> s l7 and py<=2000
1 FILES SEARCHED...
L8 95 L7 AND PY<=2000

=> s G protein couple? receptor?
L9 22491 G PROTEIN COUPLE? RECEPTOR?

=> s l8 and l9
L10 1 L8 AND L9

=> d bib abs

L10 ANSWER 1 OF 1 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
AN 1997:269403 BIOSIS
DN PREV199799561121
TI A novel ***G*** ***protein*** - ***coupled*** ***receptor*** with homology to neuropeptide and chemoattractant receptors expressed during bone development.
AU Methner, Axel; Hermey, Guido; Schinke, Birgitta; Hermans-Borgmeyer, Irm (1)
CS (1) Cent. Mol. Neurobiol., Univ. Hamburg, Martinistrasse 52, D-20246 Hamburg Germany
SO Biochemical and Biophysical Research Communications, (1997) Vol. 233, No. 2, pp. 336-342.
ISSN: 0006-291X.
DT Article
LA English
AB A novel ***G*** ***protein*** - ***coupled*** ***receptor*** was isolated from a cDNA derived from the cell line NH15-CA2 and a cDNA library from adult mouse brain using a PCR cloning strategy. The amino acid sequence of the candidate receptor ***DEZ*** showed homology to neuropeptide and chemoattractant receptors. Highest overall homology was found with the orphan receptor GPR-1 (65%), the angiotensin II receptor (62%), and the C5a anaphylatoxin receptor (60%). Northern blot analysis of ***dez*** revealed a predominant 2.6 kb mRNA species in NH15-CA2 cells. In situ hybridization experiments showed that ***dez*** is differentially regulated during development, with a prominent expression in developing osseous and cartilaginous tissue. It was also detectable in the adult parathyroid glands, hinting at a possible function in bone metabolism.

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FILE 'BIOSIS, EMBASE, CAPLUS' ENTERED AT 18:16:32 ON 24 OCT 2002
L1 123 S DEZ OR CMKLR1 OR CHEMOKINE LIKE RECEPTOR 1
L2 0 S L1 AND (DEFICIEN? OR DISRUPT? OR KNOCKOUT OR KNOCK OUT OR TRA
L3 7 S L1 AND FUNCTION
L4 4 S L1 AND REVIEW
L5 11 S L3 OR L4
L6 7 DUP REM L5 (4 DUPLICATES REMOVED)
L7 113 DUP REM L1 (10 DUPLICATES REMOVED)
L8 95 S L7 AND PY<=2000
L9 22491 S G PROTEIN COUPLE? RECEPTOR?
L10 1 S L8 AND L9

=> d bib abs l8 1-10

L8 ANSWER 1 OF 95 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.

AN 2001:297820 BIOSIS
DN PREV200100297820
TI Distribution dynamics of metallic and organic pollutants in the bottom sediments of the drainage channels of Belem, State of Para, Brazil. Original Title: Dinamica de distribuicao de poluentes metalicos e organicos nos sedimentos de fundo dos canals de Belem (PA)..
AU Nascimento, Fernanda (1); Fenzl, Norbert; Kralik, Martin; Moraes, Ana Carla (1); Bentes, Maria Helena
CS (1) Geozentrum, Universidade de Viena, Vienna Austria
SO Boletim do Museu Paraense Emilio Goeldi Serie Ciencias da Terra, (1998) Vol. 10, pp. 29-43. print.
ISSN: 0103-4278.
DT Article
LA Portuguese
SL English; Portuguese
AB The distribution of metallic and organic pollutants and their relationship with the basic components of estuarine bottom sediments (minerals, organic matter, and the principal elements) were studied in the four main drainage channels of Belem, PA. The results are showing that associations between metals, polycyclic aromatic hydrocarbons, minerals, and principal elements change strongly between the two typical climate stations of the year. For example, copper is very selective in the dry season (June-Nov) with restricted affinity to dolomite, CaO, organic matter, and the PAH compounds. In the rainy season (***Dez*** -May), the same metal does not show affinities to any components of the sediments. On the other hand, cadmium and mercury are much more correlated with all the basic components of the sediments in the rainy season than in the dry season. The distribution of polycyclic aromatic hydrocarbon is significantly influenced by the presence of organic matter and the mineralogical composition of the sediment. So, PAH shows a good correlation with organic matter and dolomite in the dry season and good relationship with calcite, illite, CaO, Na2O, and MnO in the rainy season.

L8 ANSWER 2 OF 95 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
AN 2001:242053 BIOSIS
DN PREV200100242053
TI Zeolites as possible inhibitors of permeation of some metals across the skin.
AU Zoltan, Kassai; Katarina, Bauerova (1); Vasil, Koprda; Andrea, Bujnova
CS (1) Institute of Experimental Pharmacology, Slovak Academy of Sciences, Dubravska cesta 9, SK-84216, Bratislava: exfakbau@nic.savba.sk Slovakia
SO Biologia (Bratislava), (2000) Vol. 55, No. Suppl. 8, pp. 55-58. print.
ISSN: 0006-3088.
DT Article
LA English
SL English
AB Progress in industry and energetics, urbanisation and other activities are accompanied with metal contamination of the environment. It is thus rather important to prevent the permeation of metals across the human skin. The skin with its large area (about 2 m2), together with other routes of potential contamination, could be an important negotiator of whole body intake. Chemically different permeation inhibitors are being tested with the aim to eliminate the toxicological effect of metals in humans. In the present study the use of zeolites was investigated. Synthetic (Zeolon) and natural zeolite (Mordenite) were mixed with Indulona(R) ***Dez*** cream at different ratios. Permeation of metals (Cs+, Co2+, Cd2+ ions) from water solution across the intact 5-day-old rat skin was studied in vitro using vertical diffusion cells. A radiometrical method was applied to determine radionuclide permeation of the above given metals. Zeolon was found to be a more effective inhibitor than Mordenite. Comparison of the different zeolite/Indulona(R) ***Dez*** ratios indicated that the zeolite content in the cream mixture could influence its inhibitory effect. Thus for example for Cs, the permeated fraction was 0.0054 for the mixture zeolite/Indulona(R) ***Dez*** (1:2) and 0.0078 for the mixture zeolite/Indulona(R) ***Dez*** (1:4) in the 5th experimental hour. For experiments with cobalt, the highest radioactivity was detected in the zeolite, followed by the stratum corneum (SC) and epidermis, and the lowest in the dermis. Biologically, the principal penetration barrier was found to be the SC. The presented results established the importance of zeolites for caesium and cobalt permeation inhibition and thus for decreasing their potential toxicity. The inhibitory effect of zeolites on cadmium permeation was not confirmed.

L8 ANSWER 3 OF 95 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
AN 2001:51203 BIOSIS
DN PREV200100051203
TI Two distinct regions of response drive differential growth in Vigna root electrotropism.
AU Wolverton, C. (1); Mullen, J. L.; Ishikawa, H.; Evans, M. L.
CS (1) Department of Plant Biology, The Ohio State University, 1735 Neil Avenue, Columbus, OH, 43210 USA
SO Plant Cell and Environment, (***November, 2000***) Vol. 23, No. 11, pp. 1275-1280. print.
ISSN: 0140-7791.
DT Article
LA English
SL English
AB Although exogenous electric fields have been reported to influence the orientation of plant root growth, reports of the ultimate direction of differential growth have been contradictory. Using a high-resolution image analysis approach, the kinetics of electrotropic curvature in Vigna mungo L. roots were investigated. It was found that curvature occurred in the same root toward both the anode and cathode. However, these two responses occurred in two different regions of the root, the central elongation zone (CEZ) and distal elongation zone (***DEZ***), respectively. These oppositely directed responses could be reproduced individually by a localized electric field application to the region of response. This indicates that both are true responses to the electric field, rather than one being a secondary response to an induced gravitropic stimulation. The individual responses differed in the type of differential growth giving rise to curvature. In the CEZ, curvature was driven by inhibition of elongation, whereas curvature in the ***DEZ*** was primarily due to stimulation of elongation. This stimulation of elongation is consistent with the growth response of the ***DEZ*** to other environmental stimuli.

L8 ANSWER 4 OF 95 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
AN 2000:406638 BIOSIS
DN PREV200000406638
TI On Silurus species from Iran (Actinopterygii: Siluridae.
AU Coad, Brian W. (1); Holcik, Juraj
CS (1) Research Services Division, Canadian Museum of Nature, Station D, Ottawa, ON, K1P 6P4 Canada
SO Folia Zoologica, (2000) Vol. 49, No. 2, pp. 139-148. print.
ISSN: 0139-7893.
DT Article
LA English
SL English
AB Two species of catfishes from the genus Silurus Linnaeus, 1758 occur in Iran. In addition to Silurus glanis Linnaeus, 1758 inhabiting the Caspian Sea and its tributaries, the Tedzhen River and Lake Orumiyeh tributaries, Silurus triostegus Heckel, 1843 was recorded in the Karun River and in the ***Dez*** River, Khuzestan Province. A description of Silurus triostegus is presented and its validity confirmed. It differs from Silurus glanis in its robust and longer teeth, distinctly and coarsely serrate pectoral fin spine posteriorly, and in the light colour.

L8 ANSWER 5 OF 95 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
AN 2000:256176 BIOSIS
DN PREV200000256176
TI The karyotype and chromosome number of Polyommatus buzulmavi (Lycaenidae.
AU Puplesiene, Jurate (1); Olivier, Alain
CS (1) Institute of Ecology, Akademijos 2, LT-2600, Vilnius Lithuania
SO Nota Lepidopterologica, (***April 1, 2000***) Vol. 23, No. 1, pp. 71-77. print..
ISSN: 0342-7536.
DT Article
LA English
SL English; French; German
AB The karyotype of Polyommatus buzulmavi Carbonell, 1992 from the ***Dez*** Valley (Turkey, Hakkari province) is described and figured: the haploid chromosome number n = 45 has been determined and several B-chromosomes have been found. This number departs significantly from the number n = 23, which has been found in several other species of Polyommatus s. str. so far.

L8 ANSWER 6 OF 95 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
AN 1999:20083 BIOSIS
DN PREV199900020083
TI Analysis of changes in relative elemental growth rate patterns in the elongation zone of Arabidopsis roots upon gravistimulation.
AU Mullen, Jack L. (1); Ishikawa, Hideo; Evans, Michael L.
CS (1) Dep. Plant Biol., Ohio State Univ., 1735 Neil Ave., Columbus, OH 43210 USA
SO Planta (Berlin), (***Nov., 1998***) Vol. 206, No. 4, pp. 598-603.
ISSN: 0032-0935.
DT Article
LA English
AB Although Arabidopsis is an important system for studying root physiology, the localized growth patterns of its roots have not been well defined, particularly during tropic responses. In order to characterize growth rate profiles along the apex of primary roots of Arabidopsis thaliana (L.) Heynh (ecotype Columbia) we applied small charcoal particles to the root surface and analyzed their displacement during growth using an automated video digitizer system with custom software for tracking the markers. When growing vertically, the maximum elongation rate occurred 481 +- 50 mum back from the extreme tip of the root (tip of root cap), and the elongation zone extended back to 912 +- 137 mum. The distal elongation zone (***DEZ***) has previously been described as the apical region of the elongation zone in which the relative elemental growth rate (REGR) is <30% of the peak rate in the central elongation zone. By this definition, our data indicate that the basal limit of the ***DEZ*** was located 248 +- 30 mum from the root tip. However, after gravistimulation, the growth patterns of the root changed. Within the first hour of graviresponse, the basal limit of the ***DEZ*** and the position of peak REGR shifted apically on the upper flank of the root. This was due to a combination of increased growth in the ***DEZ*** and growth inhibition in the central elongation zone. On the lower flank, the basal limit of the ***DEZ*** shifted basipetally as the REGR decreased. These factors set up the gradient of growth rate across the root, which

drives curvature.

L8 ANSWER 7 OF 95 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
AN 1998:316642 BIOSIS
DN PREV199800316642
TI Results of recoveries of Mallards ringed in winter at Nuremberg.
AU Kraus, Manfred (1); Krauss, Wener
CS (1) Fallrohrstr. 27, 90480 Nuernberg Germany
SO Ornithologischer Anzeiger, (***May, 1998***) Vol. 37, No. 2, pp. 121-140.
ISSN: 0940-3256.
DT Article
LA German
SL German; English
AB There were 358 records (12%) of 3079 Mallards ringed in the winter months between 1 Jan 82 and 30 ***Dez*** 89.82% of the records occurred by hunting, overproportionately more males than females were shot. The mortality averaged 45%, the life expectation 1 year and 8 months. The winter captures of the Mallards in the first year amount to 76%, of which 58% are males. In 2 cases the captures suggest a pair during 2 breeding seasons, in one case during one breeding season and in a further case during 3 breeding seasons. The winter guests return to breeding grounds more than 2000 km towards northwest, the majority, however, only moves up to 100 km from the winter quarters to their breeding site. During winter a change of winter habitat is unlikely, whereas a change in the following winters is more often the case. It was proven by own captures that Mallards stick to the same winter habitat during 4 successive winters. The area of autumn migration predominantly corresponds with the breeding grounds. It covers a broad area of over 2000 km towards NE, whereas the local population spreads approximately 200 km in all directions.

L8 ANSWER 8 OF 95 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
AN 1997:460856 BIOSIS
DN PREV199799760059
TI Cellular specificity of the gravitropic motor response in roots.
AU Evans, Michael L. (1); Ishikawa, Hideo
CS (1) Dep. Plant Biol., Ohio State Univ., Columbus, OH 43210 USA
SO Planta (Heidelberg), (1997) Vol. 203, No. SUPPL., pp. S115-S122.
ISSN: 0032-0935.
DT General Review
LA English
AB A number of features of the gravitropic response of roots are not readily accounted for by the classical Cholodny-Went theory. These include the observations that (i) in the later stages of the response the growth gradient is reversed with no evident reversal of the auxin gradient; (ii) a major component of the acceleration of growth along the upper side occurs in the distal elongation zone (***DEZ***), a group of cells located between the meristem and the main elongation, not within the central elongation zone; and (iii) the initiation of differential growth in the ***DEZ*** appears to be independent of the establishment of auxin asymmetry. Alternative candidates for mediation of differential growth in the ***DEZ*** include calcium ions and protons. Gravi-induced curvature is accompanied by polar movement of calcium toward the lower side of the maize root tip and the ***DEZ*** is shown to be particularly sensitive to growth inhibition by calcium. Also, gravistimulation of maize roots causes enhanced acid efflux from the upper side of the ***DEZ*** . Evidence for gravi-induced modification of ion movements in the root tip includes changes in intracellular potentials and current flow. It is clear that there is more than one motor region in the root with regard to gravitropic responses and there is evidence that the ***DEZ*** itself consists of more than one class of responding cells. In order to gain a more complete understanding of the mechanism of gravitropic curvature, the physiological properties of the sub-zones of the root apex need to be thoroughly characterized with regard to their sensitivity to hormones, calcium, acid pH and electrical perturbations.

L8 ANSWER 9 OF 95 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
AN 1997:357598 BIOSIS
DN PREV199799664001
TI Novel software for analysis of root gravitropism: Comparative response patterns of Arabidopsis wild-type and axr1 seedlings.
AU Ishikawa, H.; Evans, M. L. (1)
CS (1) Dep. Plant Biol., Ohio State Univ., Columbus, OH 43210 USA
SO Plant Cell and Environment, (1997) Vol. 20, No. 7, pp. 919-928.
ISSN: 0140-7791.
DT Article
LA English
AB In an earlier study (Evans, Ishikawa & Estelle 1994, Planta 194, 215-222) we used a video digitizer system to compare the kinetics of auxin action on root elongation in wild-type seedlings and seedlings of auxin response mutants of Arabidopsis thaliana (L.) Heynh. We have since modified the system software to allow determination of elongation on opposite sides of vertical or gravistimulated roots and to allow continuous measurement of the angle of orientation of sequential subsections of the root during the response. We used this technology to compare the patterns of differential growth that generate curvature in roots of the Columbia ecotype and in the mutants axr1-3, axr1-12 and axr2, which show reduced gravitropic responsiveness and reduced sensitivity to inhibition by auxin. The pattern of differential growth during gravitropism differed in roots of wild-type and axr1 seedlings. In wild-type roots, initial curvature resulted from differential inhibition of elongation in the distal elongation zone (***DEZ***). This was followed by an acceleration of elongation along the top side of the ***DEZ*** . In roots of axr1-13, curvature resulted from differential stimulation of elongation whereas in roots of axr1-12 the response was variable. Roots of axr2 did not exhibit gravitropic curvature. The observation that the pattern of differential growth causing curvature is dramatically altered by a change in sensitivity to auxin is consistent with the classical Cholodny-Went theory of gravitropism which maintains that differential growth patterns induced by gravistimulation are mediated primarily by gravi-induced shifts in auxin distribution. The new technology introduced with this report allows automated determination of stimulus response patterns in the small but experimentally popular roots of Arabidopsis.

L8 ANSWER 10 OF 95 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
AN 1997:269403 BIOSIS
DN PREV199799561121
TI A novel G protein-coupled receptor with homology to neuropeptide and chemoattractant receptors expressed during bone development.
AU Methner, Axel; Hermey, Guido; Schinke, Birgitta; Hermans-Borgmeyer, Irm (1)
CS (1) Cent. Mol. Neurobiol., Univ. Hamburg, Martinistrasse 52, D-20246 Hamburg Germany
SO Biochemical and Biophysical Research Communications, (1997) Vol. 233, No. 2, pp. 336-342.
ISSN: 0006-291X.
DT Article
LA English
AB A novel G protein-coupled receptor was isolated from a cDNA derived from the cell line NH15-CA2 and a cDNA library from adult mouse brain using a PCR cloning strategy. The amino acid sequence of the candidate receptor ***DEZ*** showed homology to neuropeptide and chemoattractant receptors. Highest overall homology was found with the orphan receptor GPR-1 (65%), the angiotensin II receptor (62%), and the C5a anaphylatoxin receptor (60%). Northern blot analysis of ***dez*** revealed a predominant 2.6 kb mRNA species in NH15-CA2 cells. In situ hybridization experiments showed that ***dez*** is differentially regulated during development, with a prominent expression in developing osseous and cartilaginous tissue. It was also detectable in the adult parathyroid glands, hinting at a possible function in bone metabolism.

=> d his

(FILE 'HOME' ENTERED AT 18:16:24 ON 24 OCT 2002)

FILE 'BIOSIS, EMBASE, CAPLUS' ENTERED AT 18:16:32 ON 24 OCT 2002
L1 123 S DEZ OR CMKLR1 OR CHEMOKINE LIKE RECEPTOR 1
L2 0 S L1 AND (DEFICIEN? OR DISRUPT? OR KNOCKOUT OR KNOCK OUT OR TRA
L3 7 S L1 AND FUNCTION
L4 4 S L1 AND REVIEW
L5 11 S L3 OR L4
L6 7 DUP REM L5 (4 DUPLICATES REMOVED)
L7 113 DUP REM L1 (10 DUPLICATES REMOVED)
L8 95 S L7 AND PY<=2000
L9 22491 S G PROTEIN COUPLE? RECEPTOR?
L10 1 S L8 AND L9

=> s l9 and orphan receptor?
L11 384 L9 AND ORPHAN RECEPTOR?

=> s l11 and review
L12 68 L11 AND REVIEW

=> dup rem l12
PROCESSING COMPLETED FOR L12
L13 52 DUP REM L12 (16 DUPLICATES REMOVED)

=> s l13 and PY<=2000
2 FILES SEARCHED...
L14 33 L13 AND PY<=2000

=> d bib abs 1-
YOU HAVE REQUESTED DATA FROM 33 ANSWERS - CONTINUE? Y/(N):y

L14 ANSWER 1 OF 33 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
AN 2001:226743 BIOSIS
DN PREV200100226743
TI A growing family of receptor genes for lysophosphatidic acid (LPA) and other lysophospholipids (LPs.
AU Chun, Jerold (1); Contos, James J. A.; Munroe, Donald
CS (1) Department of Pharmacology, School of Medicine, University of California, San Diego, CA: jchun@ucsd.edu USA
SO Cell Biochemistry and Biophysics, (1999) Vol. 30, No. 2, pp. 213-242.
print.
ISSN: 1085-9195.
DT General Review
LA English
SL English
AB A missing component in the experimental analysis of cell signaling by

extracellular lysophospholipids such as lysophosphatidic acid (LPA) or sphingosine-1-phosphate (S1P) has been cloned receptors. Through studies on the developing brain, the first such receptor gene (referred to as vzg-1) was identified, representing a member of the ***G*** - ***protein*** ***coupled*** ***receptor*** (GPCR) super family (1). Here we ***review*** the neurobiological approach that led to both its cloning and identification as a receptor for LPA, along with related expression data. Summarized sequence and genomic structure analyses indicate that this first, functionally identified receptor is encoded by a member of a growing gene family that divides into at least two subgroups: genes most homologous to the high-affinity LPA receptor encoded by vzg-1, and those more homologous to an ***orphan*** ***receptor*** gene edg-1 that has recently been identified as a S1P receptor. A provisional nomenclature is proposed, based on published functional ligand actions, amino acid composition and genomic structure whereby the receptors encoded by these genes are referred to as lysophospholipid (LP) receptors, with subgroups distinguished by letter and number subscripts (e.g., LPA1 for Vzg-1, and LPB1 for Edg-1). Presented expression data support the recently published work indicating that members of the LPB1 subgroup are receptors for the structurally-related molecule, S1P. The availability of cloned LP receptors will enhance the analysis of the many documented LP effects, while their prominent expression in the nervous system indicates significant but as yet unknown roles in development, normal function, and neuropathology.

L14 ANSWER 2 OF 33 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
AN 2000:467297 BIOSIS
DN PREV200000467297
TI Melanin-concentrating hormone receptor: An ***orphan*** ***receptor*** fits the key.
AU Saito, Yumiko (1); Nothacker, Hans-Peter; Civelli, Olivier
CS (1) Department of Molecular Biology, Tokyo Metropolitan Institute of Medical Science, Tokyo Japan
SO Trends in Endocrinology and Metabolism, (***October, 2000***) Vol. 11, No. 8, pp. 299-303. print.
ISSN: 1043-2760.
DT General Review
LA English
SL English
AB The melanin-concentrating hormone (MCH), a hypothalamic peptide, was identified initially in teleost fish as a regulator of pigmentary changes in background adaptation, and was later also found, in mammals, to be a regulator of feeding and energy homeostasis. Its specific receptor remained an enigma until very recently when it was identified as the orphan ***G*** - ***protein*** - ***coupled*** ***receptor*** SLC-1. This ***review*** focuses on the identification, structure and signaling of the MCH receptor and discusses some of the implications of its discovery.

L14 ANSWER 3 OF 33 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
AN 1998:429245 BIOSIS
DN PREV199800429245
TI ***G*** - ***protein*** ***coupled*** ***receptors*** in bone.
AU Bowler, Wayne B. (1); Gallagher, James A.; Bilbe, Graeme
CS (1) Human Bone Cell Res. Group, Dep. Human Anatomy and Cell Biol., Univ. Liverpool, Liverpool L69 3GE UK
SO Frontiers in Bioscience, (***Aug. 1, 1998***) Vol. 3, No. CITED AUG. 17, 1998, pp. D769-780. http://www.bioscience.org/1998/v3/d/bowler/d769-780.htm.
DT General Review
LA English
AB The skeleton is a dynamic structure that undergoes continuous remodeling, a prerequisite to meeting the constant loading demands placed upon it. This process is controlled by a multitude of systemic and local factors which interact with receptors presented on the surface of both osteoblasts and osteoclasts; the osteogenic and osteolytic cells of bone. The seven transmembrane G-protein coupled superfamily of receptors are amongst the most important expressed by bone cells. Many local and systemic factors, including prostaglandins and parathyroid hormone, initiate cellular processes via interaction with members of this receptor family. The diversity of signals and signaling cross talk generated by activated G-protein receptor complexes, facilitates a huge range of downstream responses essential in the remodeling of the skeleton. Indeed, agonist-activated signaling crosstalk provides a mechanism for integrating the activities of local and systemic factors, an essential requirement of focal remodeling. This ***review*** has focused on those currently known seven transmembrane receptors expressed by bone cells that couple to G-proteins, and describes the nature of receptor-G protein interaction and the resultant functional consequences of effector activation within bone cells.

L14 ANSWER 4 OF 33 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
AN 1998:350562 BIOSIS
DN PREV199800350562
TI Functional genomics: The search for novel neurotransmitters and neuropeptides.
AU Civelli, Olivier (1)
CS (1) Dep. Pharmacol., Univ. Calif., Irvine, CA 92697-4625 USA
SO FEBS Letters, (***June 23, 1998***) Vol. 430, No. 1-2, pp. 55-58.
ISSN: 0014-5793.
DT General Review
LA English
AB Functional genomics can be defined as the search for the physiological role of a gene for which only its primary sequence is known. Most of the genes encoding proteins containing seven hydrophobic stretches code for ***G*** ***protein*** - ***coupled*** ***receptors*** (GPCRs). Although many of these have been shown to interact with known natural ligands, several bind ligands which have not been thus far isolated. These are the so-called orphan GPCRs. As an example of functional genomics, an ***orphan*** ***receptor*** strategy has been developed to identify the natural ligands of orphan GPCRs. The application of this strategy is bound to revolutionize our understanding of the diversity of the primary messengers which modulate synaptic transmission. This ***review*** discusses the basic concepts and some of the particular problems associated with the ***orphan*** ***receptor*** strategy. The strategy's potential is exemplified by its successes which culminated in the discovery of the neuropeptides 'orphanin FQ/nociceptin' and 'orexins/hypocretins'. The steps that led to the characterization of these neuropeptides are discussed as are some of the further studies that have addressed the roles of these neuropeptides. To conclude, some of the implications of the application of the ***orphan*** ***receptor*** strategy are discussed.

L14 ANSWER 5 OF 33 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
AN 1997:448765 BIOSIS
DN PREV199799747968
TI Molecular approaches to receptors as targets for drug discovery.
AU Herz, Jeffrey M. (1); Thomsen, William J.; Yarbrough, George G.
CS (1) Applied Receptor Sci., 14427 12th Dr. S.E., Mill Creek, WA 98012 USA
SO Journal of Receptor and Signal Transduction Research, (1997) Vol. 17, No. 5, pp. 671-776.
ISSN: 1079-9893.
DT General Review
LA English
AB The cloning of a great number of receptors and channels has revealed that many of these targets for drug discovery can be grouped into superfamilies based on sequence and structural similarities. This ***review*** presents an overview of how molecular biological approaches have revealed a plethora of receptor subtypes, led to new definitions of subtypes and isoforms, and played a role in the development of highly selective drugs. Moreover, the diversity of subtypes has molded current views of the structure and function of receptor families. Practical difficulties and limitations inherent in the characterization of the ligand binding and signaling properties of expressed recombinant receptors are discussed. The importance of evaluating drug-receptor interactions that differ with temporally transient and distinct receptor conformational states is emphasized. Structural motifs and signal transduction features are presented for the following major receptor superfamilies: ligand-gated ion channel, voltage-dependent ion channel, ***G*** - ***protein*** ***coupled*** , ***receptor*** tyrosine-kinase, receptor protein tyrosine-phosphatase, cytokine and nuclear hormone. In addition, a prototypic receptor is analyzed to illustrate functional properties of a given family. The ***review*** concludes with a discussion of future directions in receptor research that will impact drug discovery, with a specific focus on ***orphan*** ***receptors*** as targets for drug discovery. Methods for classifying ***orphan*** ***receptors*** based upon homologies with members of existing superfamilies are presented together with molecular approaches to the greater challenge of defining their physiological roles. Besides revealing new ***orphan*** ***receptors*** , the human genome sequencing project will result in the identification of an abundance of novel receptors that will be molecular targets for the development of highly selective drugs. These findings will spur the discovery and development of an exciting new generation of receptor-subtype specific drugs with enhanced therapeutic specificity.

L14 ANSWER 6 OF 33 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
AN 1992:284298 BIOSIS
DN BA94:8948
TI A SUBFAMILY OF 5-HT-1D RECEPTOR GENES.
AU HARTIG P R; BRANCHEK T A; WEINSHANK R L
CS MOL. PHARMACOL., SYNAPTIC PHARM., 215 COLLEGE RD., PARAMUS, NJ 07562.
SO TRENDS PHARMACOL SCI, (1992) 13 (4), 152-159.
CODEN: TPHSDY. ISSN: 0165-6147.
FS BA; OLD
LA English
AB The recent discovery and characterization of three new 5-HT1 receptor clones and the pharmacological characterization of one ***orphan*** ***receptor*** (dog RDC4) has revealed a surprising complexity within the 5-HT1D receptor subfamily. This receptor subfamily, which is believed to be the target of the anti-migraine drug sumatriptan and may regulate feeding behavior, anxiety, depression, cardiac function and movement, can now be approached on a molecular level. These cloning discoveries have also taught us an important general lesson about the molecular pharmacology of ***G*** ***protein*** - ***coupled*** ***receptor*** genes: species homologues of a gene (the equivalent gene in different species) may be highly homologous in amino acid sequence yet display very different pharmacological properties. Conversely, two different genes in the same species (intraspecies subtypes) that display

only moderate degrees of transmembrane amino acid homology can display nearly indistinguishable pharmacological properties. In discussing the implications of these findings for both 5-HT receptors and G protein-linked receptors in general, Paul Hartig, Theresa Branchek and Richard Weinshank approach the question: why have so many receptor subtypes been preserved in the genome? In addition, controversy has been raging for several years over the classification of 5-HT1B receptors (found only in rat brain) and 5-HT1D receptors. Were they different subtypes or simply species homologues of the same receptor? Recent cloning studies have apparently complicated this issue, but the answer to the question is, in fact, becoming clearer.

L14 ANSWER 7 OF 33 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
AN 1991:350984 BIOSIS
DN BR41:35499
TI CURRENT DEVELOPMENTS IN ***G*** - ***PROTEIN*** - ***COUPLED*** ***RECEPTORS*** .
AU LIBERT F; VASSART G; PARMENTIER M
CS INST. RECHERCHE INTERDISCIPLINAIRE, FAC. MED., UNIV. LIBRE BRUXELLES, 1070 BRUSSELS, BELGIUM.
SO Curr. Opin. Cell Biol., (1991) 3 (2), 218-223. CODEN: COCBE3. ISSN: 0955-0674.
FS BR; OLD
LA English

L14 ANSWER 8 OF 33 EMBASE COPYRIGHT 2002 ELSEVIER SCI. B.V.
AN 2000311141 EMBASE
TI Molecular manipulation of ***G*** - ***protein*** - ***coupled*** ***receptors*** : A new avenue into drug discovery.
AU Sautel M.; Milligan G.
CS M. Sautel, Unite BCM, INRA, Domaine de Vilvert, F-78352 Jouy-en-Josas Cedex, France. msautel@biotec.jouy.inra.fr
SO Current Medicinal Chemistry, (2000) 7/9 (889-896). Refs: 71 ISSN: 0929-8673 CODEN: CMCHE7
CY Netherlands
DT Journal; General Review
FS 030 Pharmacology
037 Drug Literature Index
LA English
SL English
AB During the past 10 years or so, associated with the introduction of molecular biology techniques to ***G*** ***protein*** - ***coupled*** ***receptor*** (GPCR) research, outstanding progress has been made in understanding the mechanisms of action of these key proteins and their physiological functions. in-vivo manipulation of levels of GPCRs using transgenic and gene knock-out approaches have been particularly successful in assessing the roles of specific GPCRs in animal physiology. Drug discovery is aiming to produce highly specific compounds based on subtle definition of receptor subtypes which can best be studied using heterologous expression of wild type or mutated forms of cDNA or genes encoding these proteins. Furthermore, new therapeutic opportunities may be provided by investigation of ***orphan*** ***receptors*** , the natural ligands for which remain unidentified. Some human diseases have been shown to be associated with rare mutations of GPCRs and the possibility that widely distributed polymorphisms in GPCR genes may allow selective therapeutic strategies for population subgroups is driving the development of the science of pharmacogenetics.

L14 ANSWER 9 OF 33 EMBASE COPYRIGHT 2002 ELSEVIER SCI. B.V.
AN 1999215149 EMBASE
TI A new ***orphan*** ***receptor*** involved in pulsatile growth hormone release.
AU Smith R.G.; Feighner S.; Prendergast K.; Guan X.; Howard A.
CS R.G. Smith, Merck Research Laboratories, Rahway, NJ, United States
SO Trends in Endocrinology and Metabolism, (1999) 10/4 (128-135). Refs: 40 ISSN: 1043-2760 CODEN: TENME4
PUI S 1043-2760(98)00132-5
CY United States
DT Journal; General Review
FS 003 Endocrinology
030 Pharmacology
037 Drug Literature Index
LA English
SL English
AB In all species studied to date, growth hormone (GH) is released episodically. Traditionally, the regulation of this process was considered to be mediated by two hypothalamic hormones, growth hormone-releasing hormone (GHRH) and somatostatin (sst). More recently, we identified a new orphan ***G*** - ***protein*** - ***coupled*** ***receptor*** that causes episodic GH release upon activation by synthetic ligands. These ligands include the GH-releasing peptides (GHRPs) first described by Bowers and their small molecule mimetics such as L- 692,429 and MK-0677. Site-directed mutagenesis of this GH secretagogue receptor (GHS-R) has defined key amino acid residues essential for binding and activation by the synthetic ligands. The GHS-R is not activated by GHRH or sst. It is expressed exclusively in the anterior pituitary lobe and central nervous system and although this new receptor does not belong to any of the known families of ***G*** - ***protein*** - ***coupled*** ***receptors*** , the GHS-R is highly conserved across species. The Puffer fish homolog, in common with the human GHS-R, is activated by the structurally distinct ligands GHRP-6, MK-0677 and L-163,540. Thus, the GHS-R ligand-binding pocket has apparently been conserved for at least 400 million years. Studies in humans suggest that production of an endogenous ligand declines during aging. For example, chronic treatment with the synthetic ligand MK-0677 reverses the age-related physiological changes in the GH/IGF-I (insulin-like growth factor I) axis of 70-94 year old subjects. Based on the localization of expression of GHS-R in the brain, reduced production of the natural ligand might also be involved in age-associated changes in cognition, memory, mood and behavior.

L14 ANSWER 10 OF 33 EMBASE COPYRIGHT 2002 ELSEVIER SCI. B.V.
AN 1999001554 EMBASE
TI Reverse physiology: Discovery of the novel neuropeptide, orphanin FQ/Nociceptin.
AU Civelli O.; Nothacker H.-P.; Reinscheid R.
CS O. Civelli, Department of Pharmacology, University of California, Irvine, CA 92697-4625, United States
SO Critical Reviews in Neurobiology, (1998) 12/3 (163-176). Refs: 104 ISSN: 0892-0915 CODEN: CCNBE8
CY United States
DT Journal; General Review
FS 008 Neurology and Neurosurgery
029 Clinical Biochemistry
030 Pharmacology
037 Drug Literature Index
LA English
SL English
AB The search for novel neurotransmitters and neuropeptides has been recently revolutionized by the development of a purification strategy based on orphan ***G*** ***protein*** - ***coupled*** ***receptors*** , cloned receptors for which no natural ligands are known. This strategy uses the ***orphan*** ***receptor*** as bait to identify its natural ligand. This article will ***review*** the discovery of the first natural ligand isolated following this strategy. This ligand is a peptide that shares some striking sequence similarity to the opioid peptides and has been named Orphanin FQ or Nociceptin (OFQ/NOC). The discovery of OFQ/NOC will be described as one example of the use of ***orphan*** ***receptors*** in identifying novel neurotransmitters and neuropeptides, an example that has already been followed in the identification of other novel neuropeptides. After reviewing the conceptual and technological basis of the strategy and its successful first application, we discuss the criteria used to validate OFQ/NOC as the natural ligand of the ***orphan*** ***receptor*** and as a genuine neuropeptide. We also discuss the importance and implications of discovering OFQ/NOC mode of synthesis, which is synthesized as expected in the form of a larger polypeptide precursor, which in turn raises the question of the existence of other OFQ/NOC-related peptides. We then present an overview of the numerous studies that have blossomed after the OFQ/NOC discovery and describe the numerous physiological roles that have already been attributed to OFQ/NOC, and in particular the controversy regarding its involvement in pain perception. Because of the similarities between the OFQ/NOC and opioid systems, we also discuss overlaps between these systems and present evidence favoring a pharmacological separation between these systems. We finish by outlining the power of the ***orphan*** ***receptor*** strategy and by discussing some of its pitfalls.

L14 ANSWER 11 OF 33 EMBASE COPYRIGHT 2002 ELSEVIER SCI. B.V.
AN 95071715 EMBASE
DN 1995071715
TI [G protein-coupled ***orphan*** ***receptors***]. LA FAMILLE DES RECEPTEURS COUPLES AUX PROTEINES G ET SES ORPHELINS.
AU Parmentier M.; Libert F.; Vassart G.
CS Universite libre de Bruxelles, 808 route de Lennik,B-1070 Bruxelles, Belgium
SO Medecine/Sciences, (1995) 11/2 (222-231). ISSN: 0767-0974 CODEN: MSMSE4
CY France
DT Journal; General Review
FS 029 Clinical Biochemistry
LA French
SL French; English
AB ***G*** ***protein*** - ***coupled*** ***receptors*** are encoded by one of the mammalian largest gene families. These receptors share a common transmembrane organization, respond to a large variety of structurally different ligands, and regulate intracellular enzymes and channels through heterotrimeric G proteins. The first genes encoding receptors of this family were isolated following the purification of the protein and sequencing of peptides generated by proteolytic cleavage. Subsequently, a number of ***G*** ***protein*** - ***coupled*** ***receptor*** genes were cloned through expression screening procedures based either on the binding of a specific ligand, or on the functional coupling of the recombinant receptor to a transduction cascade. Most members in this gene family were however obtained by homology cloning, using cross-hybridization or low-stringency polymerase chain reaction. The result is the availability of more than 140 receptor types and subtypes (olfactory receptors excluded). With a few exceptions, all pharmacologically well-defined receptors have now been cloned. Molecular cloning confirmed the existence of poorly characterized subtypes and

uncovered other unsuspected subtypes. Genes encoding uncharacterized receptors have also been made available, either related to identified subfamilies, or defining new subfamilies by themselves. These so-called ***orphan*** ***receptors*** are waiting for the identification of the corresponding ligands and of their biological function. The availability of cloned human receptors is expected to speed up the search for more specific drugs. Determination of the three dimensional structure of selected recombinant receptors, and computer modelling of receptor-ligand interaction and ligand-mediated receptor activation will probably allow in the long run die rational design of specific agonists and antagonists. The increasing number of reported ***orphan*** ***receptors*** will certainly be instrumental in the discovery of new regulatory pathways linking cells, with the potential of opening new avenues in pharmacology.

L14 ANSWER 12 OF 33 CAPLUS COPYRIGHT 2002 ACS
AN 2001:426867 CAPLUS
DN 135:266463
TI Orphan ***G*** - ***protein*** ***coupled*** ***receptors*** : Novel drug targets for the pharmaceutical industry
AU Wilson, Shelagh; Bergsma, Derk
CS department of Vascular Biology, SmithKline Beecham Pharmaceuticals, Harlow, Essex, CM19 5AQ, UK
SO Pharmaceutical News (***2000***), 7(3), 33-41
CODEN: PHNEEP; ISSN: 1071-894X
PB G+B Magazines
DT Journal; General Review
LA English
AB A ***review*** with 41 refs. covers characteristics "motif" of the ***G*** - ***protein*** ***coupled*** ***receptors*** (GPCR), one of the most important families of drug targets for the pharmaceutical industry. Topics include: strategy for characterizing GPCR, often referred to as 'reverse pharmacol.'; successful application of the reverse pharmacol. approach for orphan GPCR in terms of linking known ligands with an orphan and in identifying novel neuropeptide ligands; identification of new neuropeptides derived from tissue exts.; and non-peptide ligands linked with orphans.
RE.CNT 41 THERE ARE 41 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 13 OF 33 CAPLUS COPYRIGHT 2002 ACS
AN 2000:806255 CAPLUS
DN 135:132770
TI The first cloned and identified lysophospholipid (LP) receptor gene, VZG-1: Implications for related receptors and the nervous system
AU Chun, Jerold
CS Department of Pharmacology Neurosciences and Biomedical Sciences Program
School of Medicine, University of California, La Jolla, CA, 92093-0636, USA
SO Advances in Experimental Medicine and Biology (***1999***), 469(Eicosanoids and Other Bioactive Lipids in Cancer, Inflammation, and Radiation Injury, 4), 357-362
CODEN: AEMBAP; ISSN: 0065-2598
PB Kluwer Academic/Plenum Publishers
DT Journal; General Review
LA English
AB A ***review*** , with refs. The first lysophosphlipid receptor gene, named "ventricular zone gene-1" or "vzg-1" that serves as a receptor for lysophosphatidic acid (LPA) was cloned and identified. Based on its prominent expression in the mammalian central nervous system (CNS), it is likely that this and related receptor-ligand interactions represent a novel signaling system for brain development and function. Moreover, this identity has provided a rationale for examg. the same and/or structurally similar ligands on homologous ***orphan*** ***receptors*** either published or in the databases, and indicates that lysophosphlipid receptors form a distinct subfamily of the ***G*** - ***protein*** ***coupled*** ***receptor*** (GPCR) superfamily.
RE.CNT 31 THERE ARE 31 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 14 OF 33 CAPLUS COPYRIGHT 2002 ACS
AN 2000:757251 CAPLUS
DN 134:50890
TI Orphan ***G*** - ***protein*** ***coupled*** ***receptors*** : novel drug targets for the pharmaceutical industry
AU Wilson, Shelagh; Bergsma, Derk
CS NFSP(N), SmithKline Beecham Pharmaceuticals, Essex, CM19 5AQ, UK
SO Drug Design and Discovery (***2000***), 17(2), 105-114
CODEN: DDDIEV; ISSN: 1055-9612
PB Harwood Academic Publishers
DT Journal; General Review
LA English
AB A ***review*** with 41 refs. There have been some notable successes in the pairing of ***orphan*** ***receptors*** with ligands, but at present the rate of generation of novel GPCR-like sequences still out paces the rate of finding ligands for them. As increased effort is applied, it is likely that the no. of pairings will increase and provide a better understanding of physiol. and pathophysiol. processes, as well as providing the pharmaceutical industry with new drug targets. The success rate may well increase further as a better understanding of the complexities of GPCR function is gained, for example in terms of requirements for addnl. chaperone proteins such as the RAMPs , requirements for heterodimerization , or for interactions with other proteins such as calmodulin, PDZ domain-contg. proteins etc. The authors believe that orphan GPCRs constitute an important resource for future drug discovery that will allow development of treatments for a range of as yet unmet medical needs.
RE.CNT 41 THERE ARE 41 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 15 OF 33 CAPLUS COPYRIGHT 2002 ACS
AN 2000:703818 CAPLUS
DN 134:25406
TI The state of hormone action and molecular regulation
AU O'Malley, Bert W.
CS USA
SO Principles of Molecular Regulation (***2000***), v-vii. Editor(s): Conn, P. Michael; Means, Anthony R. Publisher: Humana Press Inc., Totowa, N. J.
CODEN: 69ALTL
DT Conference; General Review
LA English
AB A ***review*** , with 0 refs., of hormone receptor action mechanisms including membrane receptor initiated cell signaling and nuclear receptor initiated gene regulation. Specific mention is made of steroid hormones and peptide hormones and their diverse action mechanisms. Discussions are also centered around tyrosine kinase receptors, ***G*** ***protein*** - ***coupled*** ***receptors*** , nuclear receptors, and ***orphan*** ***receptors*** .

L14 ANSWER 16 OF 33 CAPLUS COPYRIGHT 2002 ACS
AN 2000:354312 CAPLUS
DN 133:147818
TI Neurobiology of receptor-mediated lysophospholipid signaling. From the first lysophospholipid receptor to roles in nervous system function and development
AU Chun, Jerold; Weiner, Joshua A.; Fukushima, Nobuyuki; Contos, James J. A.; Zhang, Guangfa; Kimura, Yuka; Dubin, Adrienne; Ishii, Isao; Hecht, Jonathan H.; Akita, Carol; Kaushal, Dhruv
CS Department of Pharmacology, Neurosciences and Biomedical Sciences Programs, School of Medicine, University of California, San Diego, La Jolla, CA, 92093-0636, USA
SO Annals of the New York Academy of Sciences (***2000***), 905(Lysophospholipids and Eicosanoids in Biology and Pathophysiology), 110-117
CODEN: ANYAA9; ISSN: 0077-8923
PB New York Academy of Sciences
DT Journal; General Review
LA English
AB A ***review*** with 40 refs. Identification of the first lysophospholipid receptor, LPA1/Vzg-1, cloned by way of neurobiol. analyses on the embryonic cerebral cortex, has led to the realization and demonstration that there exist multiple, homologous LP receptors, including those encoded by a no. of ***orphan*** ***receptor*** genes known as "Edg," all of which are members of the ***G*** - ***protein*** - ***coupled*** ***receptor*** (GPCR) superfamily. These receptors interact with apparent high affinity for lysophosphatidic acid (LPA) or sphingosine-1-phosphate (S1P or SPP), and are referred to based upon their functional identity as lysophospholipid receptors: LPA and LPB receptors, resp., with the expectation that addnl. subgroups will be identified (i.e., LPC, etc.). Here an update is provided on insights gained from analyses of these receptor genes as they relate to the nervous system, particularly the cerebral cortex, and myelinating cells (oligodendrocytes and Schwann cells).
RE.CNT 40 THERE ARE 40 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 17 OF 33 CAPLUS COPYRIGHT 2002 ACS
AN 2000:230078 CAPLUS
DN 132:234646
TI ***Orphan*** ***receptors*** . A fruitful resource for drug discovery
AU Sakurai, Takeshi
CS Inst. Basic Med. Sci., Univ. Tsukuba, Tennodai, Tsukuba, 305-8575, Japan
SO Tanpakushitsu Kakusan Koso (***2000***), 45(6), 821-826
CODEN: TAKKAJ; ISSN: 0039-9450
PB Kyoritsu Shuppan
DT Journal; General Review
LA Japanese
AB A ***review*** with 17 refs. on identification of orphan ***G*** - ***protein*** - ***coupled*** ***receptors*** (ORL1, HFGAN72, SLC-1, etc.) and their ligands (nociceptin, orexin, melanin-concg. hormone, etc.). Identification of ligands for orphan tyrosine kinase receptors is also discussed.

L14 ANSWER 18 OF 33 CAPLUS COPYRIGHT 2002 ACS
AN 2000:8074 CAPLUS
DN 132:146687
TI ***Orphan*** ***receptors*** , novel neuropeptides and reverse pharmaceutical research
AU Civelli, O.; Reinscheid, R. K.; Nothacker, H.-P.

CS Department of Pharmacology, University of California, Irvine, CA, USA
SO Brain Research (***1999***), 848(1,2), 63-65
CODEN: BRREAP; ISSN: 0006-8993
PB Elsevier Science B.V.
DT Journal; General Review
LA English
AB A ***review*** with 16 refs. By the beginning of the next millennium, the search for the natural ligands of the orphan ***G*** - ***protein*** - ***coupled*** ***receptors*** will lead to the discovery of so many new neuropeptides that it may well double their present no. This bounty of new tools will direct the authors to new insights in brain function and to better understanding of brain disorders. It is expected that the novel neuropeptides will have a particular impact on mol. psychiatry. In view of their potential, the novel neuropeptides should also become the focus of drug discovery programs. It is hoped that these programs will be initiated at an early stage, when understanding of novel neuropeptide function has not necessarily been reached, to allow for the design of neuropeptide chem. surrogates that are crucial to the study of the novel neuropeptide system and may serendipitously develop into highly successful drugs.
RE.CNT 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 19 OF 33 CAPLUS COPYRIGHT 2002 ACS
AN 1999:685111 CAPLUS
DN 132:73717
TI Screening ***orphan*** ***receptors*** for native ligands
AU Wilson, Shelagh; Slemmon, J. Randall; Culp, Jeffrey S.; Hellmig, Brian D.; McNulty, Dean E.; Ames, Robert S.; Sarau, Henry M.; Foley, James J.; Park, Janet E.; Chambers, Jon K.; Muir, Alison I.; Stadel, Jeffrey M.; Bergsma, Derk J.
CS New Frontiers Science Park, SmithKline Beecham Pharmaceuticals, Essex, UK
SO G Protein-Coupled Receptors (***2000***), 97-114. Editor(s): Haga, Tatsuya; Berstein, Gabriel. Publisher: CRC Press, Boca Raton, Fla.
CODEN: 68HPA8
DT Conference; General Review
LA English
AB A ***review*** , with 20 refs. The authors discuss the methods that can be used to try to characterize the family of orphan ***G*** ***protein*** - ***coupled*** ***receptors*** and to identify their native ligands, including reverse pharmacol., expression systems, functional assays, prepn. of peptide exts. of tissues for detg. activating ligands for screening ***orphan*** ***receptors*** and purifn. of an ***orphan*** ***receptor*** peptide ligand from bovine hypothalamus.
RE.CNT 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 20 OF 33 CAPLUS COPYRIGHT 2002 ACS
AN 1999:684421 CAPLUS
DN 132:88228
TI Discovery of novel peptide ligands, prolactin releasing peptide (PrRP) and Apelin for orphan ***G*** ***protein*** - ***coupled*** ***receptors***
AU Onda, Haruo; Fujino, Masahiko
CS Discovery Res. Lab. 1, Pharm. Discovery Res. Div. Takeda Chem. Ind., LTD., Tsukuba, 300-4293, Japan
SO Naibunpi, Tonyobyoka (***1999***), 8(6), 595-601
CODEN: NATOFF; ISSN: 1341-3724
PB Kagaku Hyoronsha
DT Journal; General Review
LA Japanese
AB A ***review*** with 10 refs., on prepn. of ***orphan*** ***receptors*** and searching and purifn. of peptide ligands, esp. PrRP and apelin.

L14 ANSWER 21 OF 33 CAPLUS COPYRIGHT 2002 ACS
AN 1999:612894 CAPLUS
DN 132:131518
TI Functional genomics and the discovery of new drug targets
AU Civelli, Olivier; Nothacker, Hans-Peter
CS Department of Pharmacology and Department of Developmental and Cell Biology, University of California, Irvine, CA, USA
SO Diabetes Technology & Therapeutics (***1999***), 1(1), 71-76
CODEN: DTTHFH; ISSN: 1520-9156
PB Mary Ann Liebert, Inc.
DT Journal; General Review
LA English
AB A ***review*** with 37 refs. Functional genomics can be defined as the search for the physiol. role of a gene for which only its primary sequence is known. One example of a successful functional genomics adventure is the search for the natural ligands of orphan ***G*** ***protein*** - ***coupled*** ***receptors*** (GPCRs). GPCRs are proteins contg. 7 hydrophobic domains that are the recognition sites of neurotransmitters and neuropeptides. Although many of these have been shown to interact with known natural ligands, several bind ligands that have not been thus far isolated. These are the so-called "orphan" GPCRs. As an example of functional genomics, an " ***orphan*** ***receptor*** strategy" has been developed to identify the natural ligands of orphan GPCRs. We describe that the application of this strategy has already led to the identification of 4 new neuropeptides and report on what has been learned about these neuropeptides. We finally discuss the importance of the application of the ***orphan*** ***receptor*** strategy to the development of novel drugs.
RE.CNT 37 THERE ARE 37 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 22 OF 33 CAPLUS COPYRIGHT 2002 ACS
AN 1999:447438 CAPLUS
DN 131:111510
TI A novel natural ligand for orphan ***G*** - ***protein*** ***coupled*** ***receptor*** . Finding prolactin releasing peptide (PrRP)
AU Onda, Haruo; Fujino, Masahiko
CS Pharm. Discovery Res. Div., Takeda Chem. Ind., Tsukuba, 300-4293, Japan
SO Seikagaku (***1999***), 71(6), 448-454
CODEN: SEIKAQ; ISSN: 0037-1017
PB Nippon Seikagakkai
DT Journal; General Review
LA Japanese
AB A ***review*** with 14 refs., on (1) the importance of orphan ***G*** - ***protein*** ***coupled*** ***receptors*** (GPCRs) and their ligands in the development of novel drugs in reverse pharmacol., (2) search strategy for the natural ligands of GPCRs by using gene technol. and protein chem., and (3) isolation of PrRP from hypothalamus and its structure and physiol. functions.

L14 ANSWER 23 OF 33 CAPLUS COPYRIGHT 2002 ACS
AN 1999:73869 CAPLUS
DN 130:276079
TI From DNA to drugs: the orphan ***G*** - ***protein*** ***coupled*** ***receptors***
AU Murphy, Andrew J.; Paul, Jeremy I.; Webb, David R.
CS Cadus Pharmaceutical Corporation, Tarrytown, NY, 10520, USA
SO Current Opinion in Drug Discovery & Development (***1998***), 1(2), 192-199
CODEN: CODDFF; ISSN: 1367-6733
PB Current Drugs Ltd.
DT Journal; General Review
LA English
AB A ***review*** with 67 refs. on ***G*** - ***protein*** ***coupled*** ***receptors*** as prime candidates for functional genomics.
RE.CNT 68 THERE ARE 68 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 24 OF 33 CAPLUS COPYRIGHT 2002 ACS
AN 1999:11023 CAPLUS
DN 130:191307
TI Orphan ***G*** - ***protein*** - ***coupled*** ***receptors***: the next generation of drug targets?
AU Wilson, Shelagh; Bergsma, Derk J.; Chambers, Jon K.; Muir, Alison I.; Fantom, Kenneth G. M.; Ellis, Catherine; Murdock, Paul R.; Herrity, Nicole C.; Stadel, Jeffrey M.
CS SmithKline Beecham Pharmaceuticals, New Frontiers Science Park, Essex, CM19 5AW, UK
SO British Journal of Pharmacology (***1998***), 125(7), 1387-1392
CODEN: BJPCBM; ISSN: 0007-1188
PB Stockton Press
DT Journal; General Review
LA English
AB A ***review*** with 25 refs. The pharmaceutical industry has readily embraced genomics to provide it with new targets for drug discovery. Large scale DNA sequencing has allowed the identification of a plethora of DNA sequences distantly related to known ***G*** ***protein*** - ***coupled*** ***receptors*** (GPCRs), a superfamily of receptors that have a proven history of being excellent therapeutic targets. In most cases the extent of sequence homol. is insufficient to assign these " ***orphan*** " ***receptors*** to a particular receptor subfamily. Consequently, reverse mol. pharmacol. and functional genomic strategies are being employed to identify the activating ligands of the cloned receptors. Briefly, the reverse mol. pharmacol. methodol. includes cloning and expression of orphan GPCRs in mammalian cells and screening these cells for a functional response to cognate or surrogate agonists present in biol. ext. prepns., peptide libraries, and complex compd. collections. The functional genomics approach involves the use of humanized yeast cells, where the yeast GPCR transduction system is engineered to permit functional expression and coupling of human GPCRs to the endogenous signaling machinery. Both systems provide an excellent platform for identifying novel receptor ligands. Once activating ligands are identified they can be used as pharmacol. tools to explore receptor function and relation to disease.
RE.CNT 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 25 OF 33 CAPLUS COPYRIGHT 2002 ACS
AN 1998:642216 CAPLUS
DN 129:255105
TI Identification of a novel bioactive peptide utilizing an orphan seven-transmembrane-domain receptor

AU Hinuma, Shuji
CS Pharm. Discovery Res. Div., Takeda Chem. Ind., Ltd., Tsukuba, 300-42, Japan
SO Jikken Igaku (***1998***), 16(13), 1659-1661
CODEN: JIIGEF; ISSN: 0288-5514
PB Yodosha
DT Journal; General Review
LA Japanese
AB A ***review*** with 3 refs., on identification of prolactin-releasing peptide (PrRP) by reverse genetic anal. using ligand unknown orphan seven-transmembrane-domain receptor (7TMR) gene isolated from pituitary gland. The method of screening orphan 7TMR ligands and its application to drug development are also discussed.

L14 ANSWER 26 OF 33 CAPLUS COPYRIGHT 2002 ACS
AN 1998:321127 CAPLUS
DN 129:107249
TI Functional characterization of novel ***G*** ***protein*** - ***coupled*** ***receptors*** involved in nociception and HIV-1 infection
AU Samson, M.; Mollereau, C.; Rucker, J.; Libert, F.; Doranz, B. J.; Liesnard, C.; Yi, Y.; Smyth, R. J.; Liners, F.; Collman, R. G.; Costentin, J.; Meunier, J. -C.; Doms, R.; Vassart, G.; Parmentier, M.
CS IRIBHN, Universite libre de Bruxelles, Brussels, B-1070, Belg.
SO Pharmacochemistry Library (***1997***), 28(XIVth International Symposium on Medicinal Chemistry, 1996), 383-396
CODEN: PHLIDQ; ISSN: 0165-7208
PB Elsevier Science B.V.
DT Journal; General Review
LA English
AB A ***review*** , with 55 refs. Topics discussed include: the ORL1 ***orphan*** ***receptor*** related to opiate receptors and its natural ligand (nociceptin), and the CCR5 receptor for CC-chemokines necessary for HIV-1 infection.

L14 ANSWER 27 OF 33 CAPLUS COPYRIGHT 2002 ACS
AN 1998:60031 CAPLUS
DN 128:200340
TI Nociceptin/orphanin FQ and the opioid receptor-like ORL1 receptor
AU Meunier, Jean-Claude
CS Institut de Pharmacologie et de Biologie Structurale, CNRS, Toulouse, 31077, Fr.
SO European Journal of Pharmacology (***1997***), 340(1), 1-15
CODEN: EJPHAZ; ISSN: 0014-2999
PB Elsevier Science B.V.
DT Journal; General Review
LA English
AB A ***review*** with .apprxeq. 110 refs. Homol. cloning and, more recently, the sequencing of whole genomes, have identified many open reading frames encoding proteins of unknown function, in particular putative G protein-coupled membrane receptors. Identification of ***orphan*** ***receptors*** in this way has marked the advent of 'reverse pharmacol.' to identify the corresponding physiol. ligands. This approach has led to the discovery of the ORL1 (Opioid Receptor-Like 1) receptor, and of its natural ligand, nociceptin/orphanin FQ (noc/oFQ), the basic components of a new peptide-based signalling pathway in the nervous system. Based on genetic criteria, the ORL1 and opioid receptors belong to the same family, as do noc/oFQ and opioid peptides. The marked structural analogy between the ORL1 and opioid receptors, esp. the .kappa.-opioid receptor, and the noc/oFQ and opioid peptides, particularly dynorphin A, is not reflected anatomically since noc/oFQ and opioid peptides appear to be located in sep. neuronal circuits. Noc/oFQ triggers the same G protein-mediated signalling pathways as do opioids, however, to produce pharmacol. effects that sometimes differ from, and even oppose, those of opioids. Noc/oFQ stimulates an outward K+ current and/or inhibits voltage-gated Ca2+ channels, thereby reducing synaptic efficacy, i.e. neuronal activity. In the rat, noc/oFQ is endowed with supraspinal pronociceptive/anti-opioid properties (it suppresses opioid-mediated analgesia), while convergent electrophysiol. and behavioral data indicate that the peptide is a spinal analgesic. Noc/oFQ has not yet been found to ppt. withdrawal in morphine-tolerant rats. Nor does it elicit motivational effects, suggesting it lacks abuse liability. Also, by acting supraspinally, noc/oFQ impairs motor performance, suppresses spatial learning, induces feeding, and regulates basal and stress-induced release of pituitary hormones. Noc/oFQ is also active when administered i.v., exhibiting potent smooth muscle relaxant, diuretic, and antinatriuretic properties. Last but not least, noc/oFQ appears to regulate stimulated immune function, and to be involved in neuronal differentiation. The discovery of noc/oFQ, a neuropeptide with multiple functions, will certainly improve our knowledge of brain physiol., and may find therapeutic applications, for example in the management of pain or hyponatremic and water-retaining diseases. However, given the wide distribution of noc/oFQ and its receptor, the pharmacol. profile of noc/oFQ is likely to be incomplete, and other as yet unknown functions of the peptide remain to be discovered. Most helpful in this respect will be the identification of new ligands of the ORL1 receptor, particularly antagonists. If research on noc/oFQ carries on unabated at the present pace, potentially clin. interesting new compds. could become available in the not too distant future.

L14 ANSWER 28 OF 33 CAPLUS COPYRIGHT 2002 ACS
AN 1997:799259 CAPLUS
DN 128:84441
TI Orphan ***G*** ***protein*** - ***coupled*** ***receptors*** : a neglected opportunity for pioneer drug discovery
AU Stadel, Jeffrey M.; Wilson, Shelagh; Bergsma, Derk J.
CS Dep. Cardiovasc. Pharmacol., SmithKline Beecham Pharm., King of Prussia, PA, 19406, USA
SO Trends in Pharmacological Sciences (***1997***), 18(11), 430-437
CODEN: TPHSDY; ISSN: 0165-6147
PB Elsevier Science Ltd.
DT Journal; General Review
LA English
AB A ***review*** , with 51 refs.,. Access to DNA databases has introduced an exciting new dimension to the way biomedical research is conducted. 'Genomic research" offers tremendous opportunity for accelerating the identification of the cause of disease at the mol. level and thereby fosters the discovery of more selective medicines to improve human health and longevity. The current challenge is to close the gap rapidly between gene identification and clin. development of efficacious therapeutics. In the present ***review*** , Jeffrey Stadel, Shelagh Wilson and Derk Bergsma outline the rationale and describe strategies for converting one large class of novel genes, orphan ***G*** ***protein*** - ***coupled*** ***receptors*** (GPCRs), into therapeutic targets. Historically, the superfamily of GPCRs has proven to be among the most successful drug targets and consequently these newly isolated ***orphan*** ***receptors*** have great potential for pioneer drug discovery.

L14 ANSWER 29 OF 33 CAPLUS COPYRIGHT 2002 ACS
AN 1997:108824 CAPLUS
DN 126:208560
TI ***Orphan*** ***receptors*** and their natural ligands
AU Civelli, O.; Nothacker, H.P.; Bourson, A.; Ardati, A.; Monsma, F.; Reinscheid, R.
CS CNS Department, F. Hoffmann-La Roche Ltd, Basel, CH-4070, Switz.
SO Journal of Receptor and Signal Transduction Research (***1997***), 17(1-3), 545-550
CODEN: JRETET; ISSN: 1079-9893
PB Dekker
DT Journal; General Review
LA English
AB A ***review*** , with 4 refs. It is shown that a natural ligand of the opioid-like ***orphan*** ***receptor*** , GPCR (***G*** ***protein*** - ***coupled*** ***receptor***) is the novel peptide OFQ (OFQ). This peptide can be accepted as a novel neuropeptide since it specifically binds a receptor found in the CNS, since it is expressed in the CNS and since it has a distinct physiol. effect.

L14 ANSWER 30 OF 33 CAPLUS COPYRIGHT 2002 ACS
AN 1996:48135 CAPLUS
DN 124:106765
TI The ***G*** ***protein*** - ***coupled*** ***receptor*** family and one of its members, the TSH receptor
AU Vassart, G.; Desarnaud, F.; Duprez, L.; Eggerickx, D.; Labbe, O.; Libert, F.; Mollereau, C.; Parma, J.; Paschke, R.; et al.
CS Dep. of Medical Genetics, Univ. of Brussels, Brussels, B-1070, Belg.
SO Annals of the New York Academy of Sciences (***1995***), 766(Receptor Activation by Antigens, Cytokines, Hormones, and Growth Factors), 23-30
CODEN: ANYAA9; ISSN: 0077-8923
PB New York Academy of Sciences
DT Journal; General Review
LA English
AB A ***review*** , with 43 refs., of ***G*** ***protein*** - ***coupled*** ***receptors*** which discusses subtypes of known receptors and ***orphan*** ***receptors*** and structure-function relationships of the TSH receptor.

L14 ANSWER 31 OF 33 CAPLUS COPYRIGHT 2002 ACS
AN 1994:672251 CAPLUS
DN 121:272251
TI Hetero- and homodimeric receptors regulate retinoic acid and thyroid hormone response pathways
AU Pfahl, M.
CS La Jolla Cancer Research Foundation, Cancer Center, La Jolla, CA, 92037-1062, USA
SO International Congress, Symposium and Seminar Series (***1993***), Volume Date 1992, 3(PROGRESS IN ENDOCRINOLOGY), 34-41
CODEN: ICGSEM; ISSN: 0969-2622
DT Journal; General Review
LA English
AB A ***review*** , with 50 refs., on the role of RXR receptors in mediating retinoid and other hormonal signals. Thyroid hormone receptors and RAR receptors require heterodimerization with RXR receptors for effective DNA binding and function. RXR receptors can also form homodimers in the presence of specific ligands. Besides the ligand responsive receptors, COUP ***orphan*** ***receptors*** are involved in the regulation of retinoid signal transduction and can restrict the retinoid responsiveness of certain genes.

L14 ANSWER 32 OF 33 CAPLUS COPYRIGHT 2002 ACS
AN 1994:44973 CAPLUS
DN 120:44973
TI Orphan seven transmembrane domain receptors: reversing pharmacology
AU Mills, Ann; Duggan, Michael J.
CS Glaxo Inst. Mol. Biol. S.A., Plan-les-Ouates, 1228, Switz.

SO Trends in Pharmacological Sciences (***1993***), 14(11), 394-6
CODEN: TPHSDY; ISSN: 0165-6147
DT Journal; General Review
LA English
AB A ***review*** with 21 refs. Originally, the cloning of seven transmembrane domain ***G*** ***protein*** - ***coupled*** ***receptors*** depended on the isolation and sequencing of the corresponding protein or the use of expression cloning techniques. However, when sequences for these receptors became available, it was apparent that there were significant sequence homologies between these receptors, particularly in their transmembrane domains. These homologies could be exploited to specifically clone related members of the superfamily by using techniques such as homol. screening or PCR. Subsequently, these techniques have been modified to reduce their specificity (i.e. homol. screening at low stringency or PCR using degenerate primers) to allow isolation of sequences more distantly related to the known ***G*** ***protein*** - ***coupled*** ***receptors*** . Clones obtained in this way have been termed " ***orphan*** ***receptors*** " because at the time of cloning their ligand is unknown, yet they have the potential to revolutionize pharmacol. research.

L14 ANSWER 33 OF 33 CAPLUS COPYRIGHT 2002 ACS
AN 1993:617526 CAPLUS
DN 119:217526
TI Cloning and characterization of ***G*** ***protein*** - ***coupled*** ***receptors***
AU Parmentier, Marc; Libert, Frederick; Perret, Jason; Eggerickx, Dominique; Ledent, Catherine; Schurmans, Stephane; Raspe, Eric.; Dumont, Jacques E.; Vassart, Gilbert
CS IRIBHN, Univ. Libre Bruxelles, Brussels, B-1070, Bolivia
SO Advances in Second Messenger and Phosphoprotein Research (***1993***), 28(Cell Signalling), 11-18
CODEN: ASMRE5; ISSN: 1040-7952
DT Journal; General Review
LA English
AB A ***review*** , with 37 refs., on cloning of ***G*** ***protein*** - ***coupled*** ***receptors*** ; on the structure, ligand binding, and G protein-coupling; evolution of ***G*** ***protein*** - ***coupled*** ***receptors*** ; on ***G*** ***protein*** - ***coupled*** ***receptors*** as oncogenic proteins; putative olfactory receptors expressed in germ cells; and ***orphan*** ***receptors*** and new potential signaling systems.

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L1 123 S DEZ OR CMKLR1 OR CHEMOKINE LIKE RECEPTOR 1
L2 0 S L1 AND (DEFICIEN? OR DISRUPT? OR KNOCKOUT OR KNOCK OUT OR TRA
L3 7 S L1 AND FUNCTION
L4 4 S L1 AND REVIEW
L5 11 S L3 OR L4
L6 7 DUP REM L5 (4 DUPLICATES REMOVED)
L7 113 DUP REM L1 (10 DUPLICATES REMOVED)
L8 95 S L7 AND PY<=2000
L9 22491 S G PROTEIN COUPLE? RECEPTOR?
L10 1 S L8 AND L9
L11 384 S L9 AND ORPHAN RECEPTOR?
L12 68 S L11 AND REVIEW
L13 52 DUP REM L12 (16 DUPLICATES REMOVED)
L14 33 S L13 AND PY<=2000

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